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APPLICA	ATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/7	06,097	11/12/2003	Ci-Ling Pan	59629-8012.US01	6504	
2291	8 759	90 06/15/2005		EXAM	EXAMINER	
PE	RKINS CO	IE LLP		NGUYEN, HOAN C		
P.C	D. BOX 2168					
ME	NLO PARK	, CA 94026		ART UNIT	PAPER NUMBER	
		•		2871	_	

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

			Ab-				
	Application No.	Applicant(s)					
	10/706,097	PAN ET AL.	•				
Office Action Summary	Examiner	Art Unit					
	HOAN C. NGUYEN	2871					
The MAILING DATE of this communication a	ppears on the cover sheet wit	th the correspondence addres	s				
Period for Reply		0.V.T.V.O.\ 50.0.1					
A SHORTENED STATUTORY PERIOD FOR REP THE MAILING DATE OF THIS COMMUNICATION  - Extensions of time may be available under the provisions of 37 CFR of after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a recommunication if NO period for reply is specified above, the maximum statutory perions Failure to reply within the set or extended period for reply will, by statut Any reply received by the Office later than three months after the mail earned patent term adjustment. See 37 CFR 1.704(b).	I.  1.136(a). In no event, however, may a resply within the statutory minimum of thirty will apply and will expire SIX (6) MON to become AB.	eply be timely filed  (30) days will be considered timely.  (HS from the mailing date of this commur  ANDONED (35 U.S.C. § 133).	nication.				
Status							
1) Responsive to communication(s) filed on	·						
2a) ☐ This action is <b>FINAL</b> . 2b) ☐ Th	nis action is non-final.						
3) Since this application is in condition for allow	* •	•	rits is				
closed in accordance with the practice under	Ex parte Quayle, 1935 C.D	. 11, 453 O.G. 213.					
Disposition of Claims							
4) Claim(s) 1-9 is/are pending in the application	1.						
4a) Of the above claim(s) is/are withdr	rawn from consideration.						
5) Claim(s) is/are allowed.							
6) Claim(s) is/are rejected.		•					
7) Claim(s) is/are objected to.							
8) Claim(s) 1-9 are subject to restriction and/or	election requirement.						
Application Papers							
9) The specification is objected to by the Examin	ner.						
10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.							
	Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the corre	·						
11) The oath or declaration is objected to by the □	Examiner. Note the attached	Office Action of form PTO-1	52.				
Priority under 35 U.S.C. § 119							
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority docume 2. Certified copies of the priority docume 3. Copies of the certified copies of the priority docume	nts have been received. Ints have been received in A iority documents have been	pplication No	je				
• •	* See the attached detailed Office action for a list of the certified copies not received.						
	•						
Attachment(s)	<b>-</b>	(DTC :::0)					
Notice of References Cited (PTO-892)     Notice of Draftsperson's Patent Drawing Review (PTO-948)		ummary (PTO-413) s)/Mail Date					
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/0 Paper No(s)/Mail Date		formal Patent Application (PTO-152	)				

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## **DETAILED ACTION**

## Election/Restrictions

This application contains embodiments directed to the following patentably distinct species of the claimed invention:

- ١. The first species drawn to the adjustable direction magnetic field mechanism comprising other shape of permanent magnets capable generating adjusting magnitude and direction of the magnetic field.
- 11. The second species drawn to the adjustable direction magnetic field mechanism comprising other shape of electromagnets capable generating adjusting magnitude and direction of the magnetic field.
- III. The third species drawn to the <u>multi magnets</u> (not citing in independent claim 1) comprising implementation of two or more permanent magnet by adjusting distance of separation of the magnets to generating adjusting magnitude and direction of the magnetic field.
- IV. The fourth species drawn to the electromagnets (not citing in independent claim 1) comprising one of more electromagnet combination by adjusting the magnitude of the excitation current and/or the angle of the coil to generate adjusting intensity and direction of the magnetic field.
- ٧. The fifth species drawn to the liquid crystal cell comprising a multi layer structure to provide the adjustable range of phase shift and keep the stability of the liquid crystal.

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VI. The sixth species drawn to the liquid crystal cell comprising any liquid crystal with negative diamagnetic anisotropy.

Groups I-VI contain embodiments directed to the following patentably distinct subspecies of the claimed invention:

- A. The species of First embodiment drawn to a terahertz phase shifter with one liquid crystal cell (figures 1A-B).
- B. The species of Second embodiment drawn to a terahertz phase shifter with two liquid crystal cells (figures 3A-B).

Applicant is required under 35 U.S.C. 121 to elect a single disclosed subspecies for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, none of claims is generic.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, there is no generic claim.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims and any drawings readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

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Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement is traversed (37 CFR 1.143).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOAN C. NGUYEN whose telephone number is (571) 272-2296. The examiner can normally be reached on MONDAY-THURSDAY:8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim H Robert can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HOAN C. NGUYEN

Examiner

Art Unit 2871

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ROBERT D. KIM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800